## ABSTRACT OF THE DISCLOSURE

When highly redundant information that expresses five tones using 4 bits is transferred to a printer in terms of a unit data length in data transfer,

5 efficiency is very poor. Hence, multi-valued data is quantized to 5-valued data, which is output as a 4-bit code that can express five values. 4-bit codes for three bits are combined to be converted into an 8-bit code. The 8-bit codes are packed into data of a 16-bit unit, and the packed data is transferred to the printer.

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